

## PROJECT ADMINISTRATION DATA SHEET

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ORIGINAL

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REVISION NO. \_\_\_\_\_

Project No. A-3024DATE: 8/18/81Project Director: Mr. J. W. Dalton~~XXXXXX~~/Lab

EML/RSD

Sponsor: U. S. Army Missile Command; Redstone Arsenal, AL 35898Type Agreement: Delivery Order No. 0025 under Contract No. DAAH01-81-D-A003Award Period: From 8/6/81 To 10/15/81 (Performance) 12/15/81 (Reports)Sponsor Amount: \$60,000

Contracted through:

Cost Sharing: NoneGTRI/~~OW~~Title: ATBM Simulation Support

## ADMINISTRATIVE DATA

OCA CONTACT Duane Hutchison

x 4820

- 1) Sponsor Technical Contact: Dr. M. M. Hallum; Systems Simulation and Development Directorate; U. S. Army Missile Command; Attn: DRSMI-RDF; Redstone Arsenal, AL 35898 205/ 876-4141
- 2) Sponsor Admin./Contractual Contact: Mr. Thomas A. Bryant; ONR Resident Representative; Georgia Institute of Technology; 206 O'Keefe Building; Atlanta, GA 30332.

Reports: See Deliverable Schedule Security Classification: UnclassifiedDefense Priority Rating: DO-A2 under DMS Reg. 1

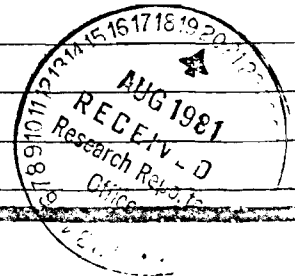
## RESTRICTIONS

See Attached DOD Supplemental Information Sheet for Additional Requirement

Travel: Foreign travel must have prior approval - Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of \$500 or 125% of approved proposal budget category.

Equipment: Title vests with Government; except that items costing less than \$1,000 vests with GIT if prior approval to purchase is obtained from the Contracting Officer.

## COMMENTS:



## COPIES TO:

Administrative Coordinator  
Research Property Management  
Accounting Office  
Procurement Office

Research Security Services  
Reports Coordinator (OCA)  
Legal Services (OCA)  
Library, Technical Reports

EES Research Public Relations  
Project File (OCA)  
Other: Mr. Dalton - Huntsvil

SR 466-137  
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SPONSORED PROJECT TERMINATION SHEET

Date 3/1/82

Project Title: ATBM Simulation Support

Project No: A-3024

Project Director: J. W. Dalton

Sponsor: USAMC; Redstone Arsenal, AL

Effective Termination Date: 10/15/81

Clearance of Accounting Charges: 12/15/81

Grant/Contract Closeout Actions Remaining:

- ☒ Final Invoice and Closing Documents
- ☐ Final Fiscal Report
- ☐ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☐ Other \_\_\_\_\_

Assigned to: EML/RSD (School/Laboratory)

COPIES TO:

|                                 |                                      |                          |
|---------------------------------|--------------------------------------|--------------------------|
| Administrative Coordinator      | Research Security Services           | EES Public Relations (2) |
| Research Property Management    | <del>Reports Coordinator (OCA)</del> | Computer Input           |
| Accounting                      | Legal Services (OCA)                 | Project File             |
| Procurement/EES Supply Services | Library                              | Other _____              |

Monthly Technical Report No. 001  
and  
Monthly Cost and Performance Report No. 001

Report Period  
August 6, 1981 through August 31, 1981

ATBM SIMULATION SUPPORT

J. W. Dalton

Contract No. DAAH01-81-D-A003  
Delivery Order No. 0025

Project No. A-3024

Prepared for

U. S. Army Missile Command  
Redstone Arsenal, Alabama 35898  
Attn: DRSMI-IYE/Morris

Prepared by

Georgia Institute of Technology  
Engineering Experiment Station  
Atlanta, Georgia 30332

#### WORK PERFORMED DURING THIS REPORTING PERIOD

During this reporting period, the main effort has been to become familiar with the MIRADCOM Digital Air Defense Simulator (MIDAS) by reviewing the MIDAS documentation and looking at the actual simulator code.

The simulator source code is being implemented on the CDC-6600 computer for simulator execution. The various guidance modes of PATRIOT will be evaluated relative to what subroutines and data in MIDAS are actually required in order to simulate PATRIOT in the RFSS for guidance performance evaluations against the TBM threats.

#### PROBLEMS ENCOUNTERED

None

#### WORK TO BE DONE

The MIDAS simulator has more capability than is required for implementation of the PATRIOT missile receiver hardware in the RFSS. Thus, the basic effort is to understand not only the MIDAS simulator but also the PATRIOT missile system in order to develop a preliminary set of design requirements for the real time hardware-in-the-loop simulation of PATRIOT.

The modifications to MIDAS will be designed such that the program structure will allow either an all-digital simulation or a hardware-in-the-loop simulation using actual missile receiver hardware.

Cost Information

The following charges have been incurred against the contract during period August 6 through August 31, 1981.

|                                      | <u>Expended</u> | <u>Encumbered</u> |
|--------------------------------------|-----------------|-------------------|
| Personal Services (PS)               | \$ 13,293.90    | \$ -0-            |
| Materials and Supplies               | -0-             | -0-               |
| Travel                               | -0-             | -0-               |
| Retirement (@ 11.11% of PS)          | 1,365.73        | -0-               |
| Overhead (@ 55% of above categories) | 8,062.80        | -0-               |
| TOTAL                                | \$ 22,722.43    | \$ -0-            |

The breakdown of personal services is as follows:

|                                         | <u>Dollars</u> | <u>Approximate<br/>Man Hours</u> |
|-----------------------------------------|----------------|----------------------------------|
| Principal Research Scientists/Engineers | \$ 235.18      | 9.0                              |
| Senior Research Scientists/Engineers    | 5,280.98       | 249.0                            |
| Research Scientists II/Engineers II     | 4,718.49       | 279.0                            |
| Research Scientists I/Engineers I       | 1,581.73       | 117.0                            |
| Technicians/Draftsmen                   | -0-            | -0-                              |
| Students                                | 1,001.20       | 163.0                            |
| Secretarial/Clerical/Other              | 476.32         | 66.0                             |
| TOTAL                                   | \$ 13,293.90   | 883.0                            |

The current financial status of the contract is as follows:

|                        | <u>Budget As<br/>Proposed</u> | <u>Expended</u> | <u>Encumbered</u> | <u>Free<br/>Balance</u> |
|------------------------|-------------------------------|-----------------|-------------------|-------------------------|
| Personal Services (PS) | \$ 35,578.52                  | \$ 13,293.90    | \$ -0-            | \$ 22,284.62            |
| Materials and Supplies | 179.40                        | -0-             | -0-               | 179.40                  |
| Travel and Shipping    | -0-                           | -0-             | -0-               | -0-                     |
| Computer               | -0-                           | -0-             | -0-               | -0-                     |
| Overhead               | 21,290.32                     | 8,062.80        | -0-               | 13,227.52               |
| Retirement             | 2,951.76                      | 1,365.73        | -0-               | 1,586.03                |
| FUNDING                | \$ 60,000.00                  | \$ 22,722.43    | \$ -0-            | \$ 37,277.57            |

Based on present full funding, the funding and equivalent man hours are sufficient to complete the task. Approximately 38% of the proposed task has been completed.